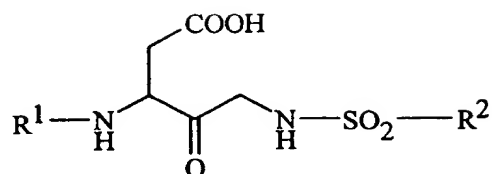


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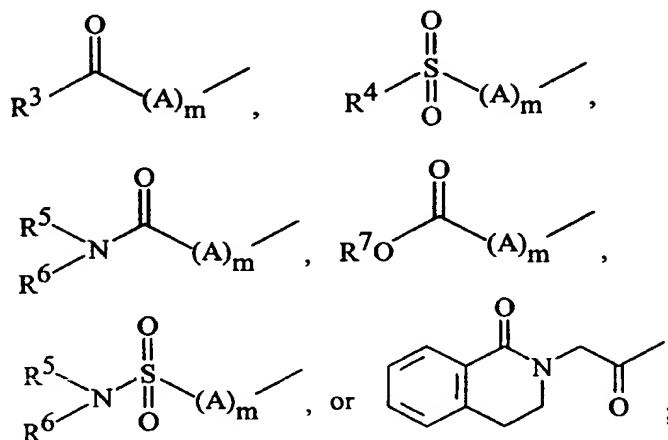
## CLAIMS

1. A compound of Formula I



I

wherein R<sup>1</sup> is



R<sup>3</sup> is hydrogen,

C<sub>1</sub>-C<sub>6</sub> alkyl,

-(CH<sub>2</sub>)<sub>n</sub> aryl, or

-(CH<sub>2</sub>)<sub>n</sub> heteroaryl;

R<sup>4</sup> is C<sub>1</sub>-C<sub>6</sub> alkyl,

-(CH<sub>2</sub>)<sub>n</sub> aryl, or

-(CH<sub>2</sub>)<sub>n</sub> heteroaryl;

R<sup>5</sup> and R<sup>6</sup> are each independently hydrogen,

C<sub>1</sub>-C<sub>6</sub> alkyl,

-(CH<sub>2</sub>)<sub>n</sub> aryl, or

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-(CH<sub>2</sub>)<sub>n</sub> heteroaryl;

R<sup>7</sup> is C<sub>1</sub>-C<sub>6</sub> alkyl,

-(CH<sub>2</sub>)<sub>n</sub> aryl, or

-(CH<sub>2</sub>)<sub>n</sub> heteroaryl;

5

each n is independently 0 to 6;

each m is independently 0, 1, 2, or 3;

A is alanine, leucine, isoleucine, proline, phenylalanine, glycine, tyrosine,

serine, threonine, tryptophan, cysteine, methionine, valine,

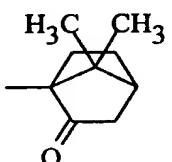
asparagine, glutamine, aspartic acid, lysine, glutamic acid, arginine,

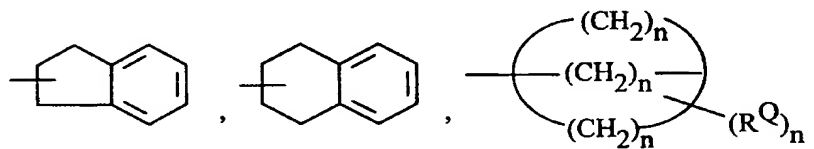
10

or histidine;

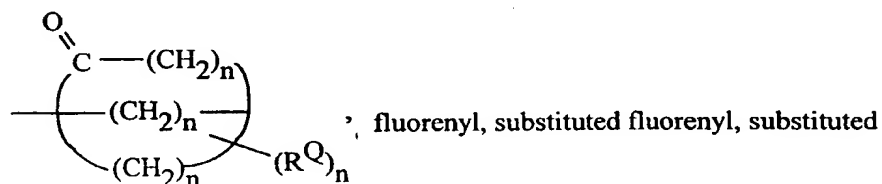
each R<sup>Q</sup> is independently hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>2</sup> is -(CH<sub>2</sub>)<sub>n</sub>-Z; and

Z is aryl, heteroaryl, cycloalkyl, C<sub>1</sub>-C<sub>6</sub>alkyl, ,



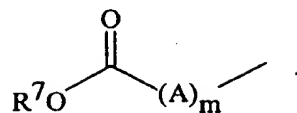
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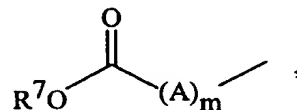
aryl, substituted heteroaryl, or substituted cycloalkyl, and the pharmaceutically acceptable salts, esters, amides, and prodrugs thereof.

2. A compound according to Claim 1 wherein R<sup>1</sup> is

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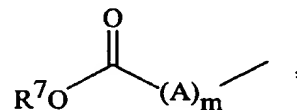


3. A compound according to Claim 1 wherein  $R^1$  is



$m$  is 0, and  $R^7$  is  $-(CH_2)_n$  aryl.

- 5 4. A compound according to Claim 1 wherein  $R^1$  is



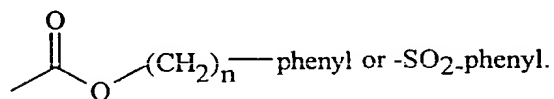
$m$  is 0, and  $R^7$  is  $-CH_2$  aryl.

5. A compound according to Claim 1 wherein  $R^2$  is  $-(CH_2)_n$  aryl.

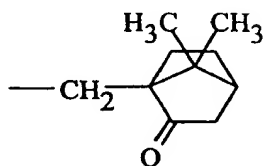
6. A compound according to Claim 5 wherein aryl is phenyl or naphthyl.

- 10 7. A compound according to Claim 1 wherein  $R^2$  is  $-(CH_2)_n$  -cycloalkyl.

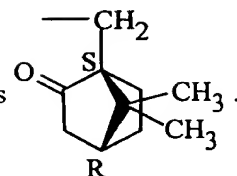
8. A compound according to Claim 1 wherein  $R^1$



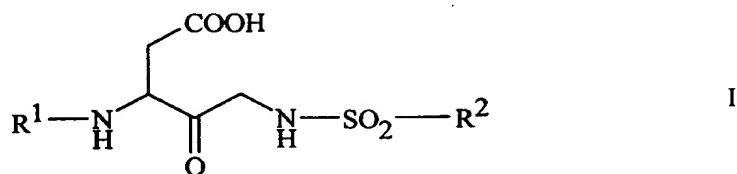
9. A compound according to Claim 1 wherein  $R^2$  is  $—CH_2—$



10. A compound according to Claim 1 wherein R<sup>2</sup> is

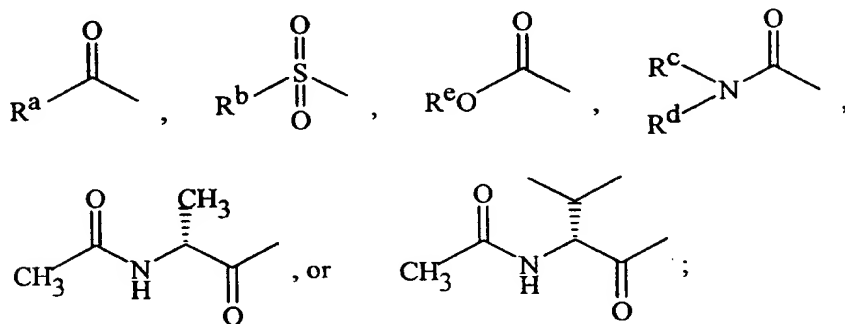


11. A compound of the Formula I



wherein R<sup>2</sup> is -CH<sub>2</sub>CH<sub>2</sub>- aryl, -CH<sub>2</sub>- cycloalkyl, -CH<sub>2</sub>CH<sub>2</sub>- cycloalkyl, or  
-CH<sub>2</sub>CH<sub>2</sub>- heteroaryl;

R<sup>1</sup> is



R<sup>a</sup> is -(CH<sub>2</sub>)<sub>n</sub>- aryl or -(CH<sub>2</sub>)<sub>n</sub> heteroaryl;

R<sup>b</sup> is aryl or heteroaryl;

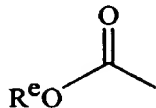
R<sup>c</sup> is -CH<sub>2</sub> aryl or aryl;

R<sup>d</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl;

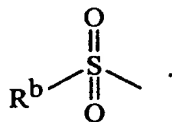
R<sup>e</sup> is -CH<sub>2</sub> aryl or -CH<sub>2</sub> heteroaryl; and the pharmaceutically acceptable salts, esters, amides, and prodrugs thereof.

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12. A compound according to Claim 11 wherein  $R^1$  is



13. A compound according to Claim 11 wherein  $R^1$  is



14. A compound according to Claim 11 wherein  $R^e$  is  $-(\text{CH}_2)_n$  aryl.
15. A compound according to Claim 14 wherein aryl is phenyl or naphthyl.
16. A compound according to Claim 13 wherein  $R^b$  is aryl.
17. A compound according to Claim 16 wherein aryl is phenyl.
18. The compounds:
- 3-Benzyloxycarbonylamino-4-oxo-5-(2-phenylethanesulfonylamino)-pentanoic acid;
- 3-Benzyloxycarbonylamino-4-oxo-5-(3-phenyl-propane-1-sulfonylamino)-pentanoic acid;
- 3-Benzyloxycarbonylamino-4-oxo-5-phenylmethanesulfonylamino-pentanoic acid;
- 5-Benzenesulfonylamino-3-benzyloxycarbonylamino-4-oxo-pentanoic acid;
- 3-Benzyloxycarbonylamino-5-methanesulfonylamino-4-oxo-pentanoic acid;
- 3-Benzyloxycarbonylamino-5-(naphthalene-1-sulfonylamino)-4-oxo-pentanoic acid;

3-Benzylloxycarbonylamino-5-(2-cyclohexyl-ethanesulfonylamino)-4-oxo-pentanoic acid;

3-Benzylloxycarbonylamino-5-(2-naphthalen-1-yl-ethanesulfonylamino)-4-oxo-pentanoic acid;

5 3-Benzylloxycarbonylamino-5-(7,7-dimethyl-2-oxo-bicyclo[2.2.1]hept-1-(R)-ylmethanesulfonylamino)-4-oxo-pentanoic acid;

3-Benzylloxycarbonylamino-5-(indan-1-ylmethanesulfonylamino)-4-oxo-pentanoic acid;

10 3-Benzylloxycarbonylamino-5-(9-fluoro-9H-fluoren-9-ylmethanesulfonylamino)-4-oxo-pentanoic acid;

3-Benzylloxycarbonylamino-5-(7,7-dimethyl-2-oxo-bicyclo[2.2.1]hept-1-(S)-ylmethanesulfonylamino)-4-oxo-pentanoic acid;

3-(2-Acetylamino-3-methyl-butyrylamino)-5-(7,7-dimethyl-2-oxo-bicyclo[2.2.1]hept-1-(S)-ylmethanesulfonylamino)-4-oxo-pentanoic acid;

15 3-(2-Acetylamino-propylamino)-5-(7,7-dimethyl-2-oxo-bicyclo[2.2.1]hept-1-(S)-ylmethanesulfonylamino)-4-oxo-pentanoic acid;

3-(1,2,3,4-tetrahydro-1-oxo-isoquinoline-2-yl)-acetanino-5-benzenesulfonylamino-4-oxo-pentanoic acid;

20 (S)-5-(Bicyclo[2.2.1]hept-1-ylmethanesulfonylamino)-4-oxo-3-[2-(1-oxo-3,4-dihydro-1H-isoquinolin-2-yl)-acetylamino]-pentanoic acid;

(S)- 4-Oxo-3-[2-(1-oxo-3,4-dihydro-1H-isoquinolin-2-yl)-acetylamino]-5-(2-phenyl-ethanesulfonylamino)-pentanoic acid; and

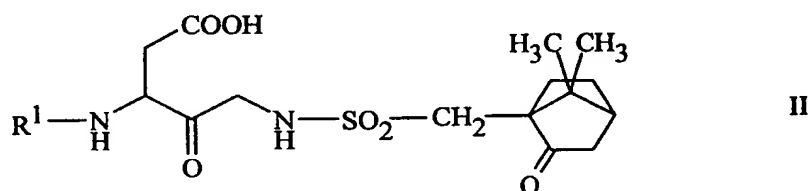
4-Oxo-3-[2-(1-oxo-3,4-dihydro-1H-isoquinolin-2-yl)-acetylamino]-5-phenylmethanesulfonylamino-pentanoic acid.

- 25 19. A method of inhibiting interleukin-1 $\beta$  converting enzyme, the method comprising administering to a patient in need of inhibition of interleukin-1 $\beta$  converting enzyme a therapeutically effective amount of a compound of Claim 1.

20. A method of inhibiting Caspase-4, the method comprising administering to a patient in need of Caspase-4 inhibition a Caspase-4 inhibiting amount of a compound of Claim 1.
- 5 21. A method of treating or preventing stroke, the method comprising administering to a patient having a stroke or having had a stroke a therapeutically effective amount of a compound of Claim 1.
22. A method of treating inflammatory diseases, the method comprising administering to a patient having an inflammatory disease a therapeutically effective amount of a compound of Claim 1.
- 10 23. The method of Claim 22 wherein the inflammatory disease is arthritis.
24. The method of Claim 22 wherein the inflammatory disease inflammatory bowel disease.
25. A pharmaceutically acceptable composition that contains a compound of Claim 1.
- 15 26. A method of inhibiting interleukin-1 $\beta$  converting enzyme, the method comprising administering to a patient in need of inhibition of interleukin-1 $\beta$  converting enzyme a therapeutically effective amount of a compound of Claim 11.
- 20 27. A method of inhibiting Caspase-4, the method comprising administering to a patient in need of Caspase-4 inhibition a Caspase-4 inhibiting amount of a compound of Claim 11.
28. A method of treating or preventing stroke, the method comprising administering to a patient having a stroke or having had a stroke a therapeutically effective amount of a compound of Claim 11.

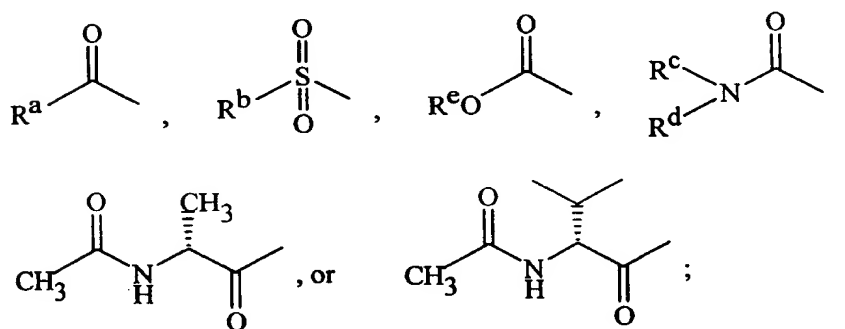
29. A method of treating inflammatory diseases, the method comprising administering to a patient having an inflammatory disease a therapeutically effective amount of a compound of Claim 11.
30. The method of Claim 29 wherein the inflammatory disease is arthritis.
- 5 31. The method of Claim 29 wherein the inflammatory disease is inflammatory bowel disease.
32. A pharmaceutically acceptable composition that contains a compound of Claim 11.
- 10 33. A method of treating septic shock, the method comprising administering to a patient having septic shock a therapeutically effective amount of a compound of Claim 1.
34. A method of treating septic shock, the method comprising administering to a patient having septic shock a therapeutically effective amount of a compound of Claim 11.
- 15 35. A method of treating reperfusion injury, the method of comprising administering to a patient having reperfusion injury a therapeutically effective amount of a compound of Claim 1.
- 20 36. A method of treating reperfusion injury, the method of comprising administering to a patient having reperfusion injury a therapeutically effective amount of a compound of Claim 11.
37. A method of treating Alzheimer's disease, the method comprising administering to a patient having Alzheimer's disease a therapeutically effective amount of a compound of Claim 1.

38. A method of treating Alzheimer's disease, the method comprising administering to a patient having Alzheimer's disease a therapeutically effective amount of a compound of Claim 11.
39. A method of treating shigellosis, the method comprising administering to a patient having shigellosis a therapeutically effective amount of a compound of Claim 1.
40. A method of treating shigellosis, the method comprising administering to a patient having shigellosis a therapeutically effective amount of a compound of Claim 11.
41. A compound of the Formula II



wherein

R<sup>1</sup> is



R<sup>a</sup> is  $-(CH_2)_n$ - aryl or  $-(CH_2)_n$  heteroaryl;

R<sup>b</sup> is aryl or heteroaryl;

R<sup>c</sup> is  $-CH_2$  aryl or aryl;

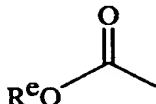
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$R^d$  is hydrogen or  $C_1$ - $C_6$  alkyl;

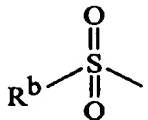
$R^e$  is  $-CH_2$  aryl or  $-CH_2$  heteroaryl; and the pharmaceutically acceptable salts, esters, amides, and prodrugs thereof.

42. A compound according to Claim 41 wherein  $R^1$  is

5



43. A compound according to Claim 41 wherein  $R^1$  is



44. A compound according to Claim 41 wherein  $R^e$  is  $-(CH_2)_n$  aryl.

45. A compound according to Claim 41 wherein aryl is phenyl or naphthyl.

10

46. A compound according to Claim 41 wherein  $R^b$  is aryl.

47. A compound according to Claim 46 wherein aryl is phenyl.

48. A method of inhibiting interleukin- $1\beta$  converting enzyme, the method comprising administering to a patient in need of inhibition of interleukin- $1\beta$  converting enzyme a therapeutically effective amount of a compound of Claim 41.

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49. A method of inhibiting Caspase-4, the method comprising administering to a patient in need of Caspase-4 inhibition a Caspase-4 inhibiting amount of a compound of Claim 41.

50. A method of treating or preventing stroke, the method comprising administering to a patient having a stroke or having had a stroke a therapeutically effective amount of a compound of Claim 41.
51. A method of treating inflammatory diseases, the method comprising administering to a patient having an inflammatory disease a therapeutically effective amount of a compound of Claim 41.
52. The method of Claim 51 wherein the inflammatory disease is arthritis.
53. The method of Claim 51 wherein the inflammatory disease inflammatory bowel disease.
54. A method of treating septic shock, the method comprising administering to a patient having septic shock a therapeutically effective amount of a compound of Claim 41.
55. A method of treating reperfusion injury, the method of comprising administering to a patient having reperfusion injury a therapeutically effective amount of a compound of Claim 41.
56. A method of treating Alzheimer's disease, the method comprising administering to a patient having Alzheimer's disease a therapeutically effective amount of a compound of Claim 41.
57. A method of treating shigellosis, the method comprising administering to a patient having shigellosis a therapeutically effective amount of a compound of Claim 41.
58. The compounds:  
3-[2-(2-Benzoyloxycarbonylamino-3-methyl-butyrylamino)-propionylamino]-4-oxo-5-(2-phenyl-ethanesulfonylamino)-pentanoic acid;

3-[2-(2-Benzoyloxycarbonylamino-4-carboxy-butyrylamino)-3-methyl-butyrylamino]-4-oxo-5-(2-phenyl-ethanesulfonylamino)-pentanoic acid;

5 3-{2-[4-Carboxy-2-(3-phenyl-propionylamino)-butyrylamino]-3-methyl-butyrylamino}-4-oxo-5-(2-phenyl-ethanesulfonylamino)-pentanoic acid;

3-[2-(2-Benzoyloxycarbonylamino-3-methyl-butyrylamino)-propionylamino]-5-(7,7-dimethyl-2-oxo-bicyclo[2.2.1]hept-1-ylmethanesulfonylamino)-4-oxo-pentanoic acid;

10 3-[2-(2-Benzoyloxycarbonylamino-4-carboxy-butyrylamino)-3-methyl-butyrylamino]-5-(7,7-dimethyl-2-oxo-bicyclo[2.2.1]hept-1-ylmethanesulfonylamino)-4-oxo-pentanoic acid;

15 3-{2-[4-Carboxy-2-(3-phenyl-propionylamino)-butyrylamino]-3-methyl-butyrylamino}-5-(7,7-dimethyl-2-oxo-bicyclo[2.2.1]hept-1-ylmethanesulfonylamino)-4-oxo-pentanoic acid;

3-(2-{2-[2-Acetylamino-3-(4-hydroxy-phenyl)-propionylamino]-4-carboxy-butyrylamino}-3-methyl-butyrylamino)-5-(7,7-dimethyl-2-oxo-bicyclo[2.2.1]hept-1-ylmethanesulfonylamino)-4-oxo-pentanoic acid; and

20 3-(2-{2-[2-Acetylamino-3-(4-hydroxy-phenyl)-propionylamino]-4-carboxy-butyrylamino}-3-methyl-butyrylamino)-4-oxo-5-(2-phenyl-ethanesulfonylamino)-pentanoic acid.